

primitive type of structure,\* it suggests that *Negundo* in its origin has a very close relationship to the genus *Acer*—probably a highly specialized form in this genus. In this connection the simpler, more *Acer-like* foliage of the seedling of *A. Negundo* is to be recalled. This phenomenon and the occurrence of the hermaphrodite flowers above recorded lends support to the classification which places *Negundo* in the genus *Acer*.

In conclusion I wish to express my heartiest thanks to Mr. R. B. Thomson for his interest and assistance in the preparation of this paper.

UNIVERSITY OF TORONTO,  
February, 1912

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### THE FLORA OF NORTHAMPTON COUNTY, PENNSYLVANIA

BY WILBUR L. KING

(Continued from *May Torreya*)

#### CYPERACEAE

CYPERUS FLAVESCENS L. In marshy grounds, Easton. (Porter.)  
CYPERUS RIVULARIS Kunth. At Island Park. (Porter); in wet soil along canal at Bethlehem. Sept. 1, 1899.  
CYPERUS INFLEXUS Muhl. In wet, sandy soil. (Porter.)  
CYPERUS DENTATUS Torr. Along canal in wet sandy soil at Bethlehem, Sept., 1898. Specimens with flower scales modified into tufts of small leaves have been found.  
CYPERUS ROTUNDUS L. On ore dumps in Bethlehem Steel Co.'s yard. Reported in *Torrey Bulletin* Jan., 1892.  
CYPERUS ESCULENTUS L. In wet soil and in meadows along Monocacy creek near Bethlehem. Common. Aug. 5, 1899.  
CYPERUS STRIGOSUS L. In moist sandy soil and in meadows at Bethlehem. Sept. 9, 1896.  
CYPERUS FILICULMIS Vahl. Along Lehigh river. (J. A. Ruth.)  
DULICHIUM ARUNDINACEUM (L.) Britton. In moist soil at Island Park. Aug. 25, 1902.  
ELEOCHARIS OVATA (Roth.) R. & S. On muddy shores of Lehigh river at Bethlehem.  
ELEOCHARIS GLAUCESCENS (Willd.) Schult. In moist soil along Lehigh canal at Bethlehem. June 20, 1899.  
ELEOCHARIS ACICULARIS (L.) R. & S. On muddy banks of Lehigh river, Bethlehem. Aug. 22, 1899.

\* In certain acacias, pines, junipers, etc., wounding causes reversion to the seedling type of foliage which is considered ancestral.

*ELEOCHARIS INTERMEDIA* (Muhl.) Schultes. In wet soil along Monocacy creek 1 mile east of Bethlehem. Sept. 24, 1904.

*STENOPHYLLUS CAPILLARIS* (L.) Britton. In dry or moist soil. (Porter.)

*FIMBRISTYLIS AUTUMNALIS* (L.) R. & S. In moist sandy soil along Lehigh river, Bethlehem. Aug. 22, 1899.

*SCIRPUS PLANIFOLIUS* Muhl. In woods, Lehigh Mt. May 13, 1899.

*SCIRPUS DEBILIS* Pursh. In sandy soil along Lehigh river, Bethlehem. Aug. 22, 1899.

*SCIRPUS AMERICANUS* Pers. In fresh water and brackish swamps. (Porter.)

*SCIRPUS LACUSTRIS* L. In wet sandy soil at Bethlehem. Aug. 5, 1899.

*SCIRPUS ATROVIRENS* Muhl. In meadows along Monocacy creek one mile from Bethlehem. July 28, 1900.

*SCIRPUS CYPERINUS* (L.) Kunth. In swamps or meadows. (Porter.)

*ERIOPHORUM GRACILE* Koch. In bogs and ponds. (Porter.)

*SCLERIA PAUCIFLORA* Muhl. In dry soil. (Porter.)

*CAREX FOLLICULATA* L. In shaded swamps and wet woods, Pen Argyl. (Porter.)

*CAREX INTUMESCENS* Rudge. In damp thickets and wet places. (Porter.)

*CAREX LUPULINA* Muhl. In swamps. (Porter.)

*CAREX LURIDA* Wahl. In wet places. (Porter.)

*CAREX HYSTRICINA* Muhl. At Easton. (Porter.) In wet meadows along Monocacy creek near Bethlehem. May 27, 1899.

*CAREX COMOSA* Boott. Near Easton. (Porter.) In wet soil along Monocacy creek near Bethlehem. May 30, 1899.

*CAREX TRICHOCARPA* Muhl. In wet places. (Porter.)

*CAREX SCABRATA* Schwein. In ravine on Lehigh Mt. south of Lehigh University. June 15, 1900. (J. A. Ruth.)

*CAREX VESTITA* Willd. In sandy woods, Pen Argyl. (Porter.)

*CAREX STRICTA* Lam. In swamps. (Porter.)

*CAREX STRICTA ANGUSTATA* (Boott.) Bailey. (Porter.)

*CAREX TORTA* Boott. In wet places. (Porter.)

*CAREX PRASINA* Wahl. In ravine, Lehigh Mt., south of Lehigh University. June 15, 1900. (J. A. Ruth.)

*CAREX CRINITA* Lam. In wet places. (Porter.)

*CAREX GYNANDRA* Schwein. In swamps, Seidersville. (Porter.)

*CAREX VIRESSENS* Muhl. Near Easton. (Porter.) In woods, Lehigh Mt. July 1, 1899.

*CAREX COSTELLATA* Britton. In woods. (Porter.)

*CAREX TRICEPS* Michx. In woods on Lehigh Mt. south of Lehigh University. June 15, 1900. (J. A. Ruth.)

*CAREX GRACILLIMA* Schwein. In moist woods. (Porter.)

*CAREX DAVISII* Schwein. & Torr. In moist thickets and meadows along Delaware river, Easton. (Porter.)

*CAREX GRISEA* Wahl. In woods and thickets, Easton. (Porter.)

*CAREX GLAUCODEA* Tuckerm. In open fields at Easton, Pen Argyl and Bethlehem. (Porter.)

*CAREX GRANULARIS* Muhl. In bogs or meadows. (Porter.)

*CAREX GRANULARIS SCHRIVERI* Britton. At Easton. (Porter.) This is the only county in Penna. from which this plant is reported in Porter's Flora.

*CAREX CONOIDEA* Schk. In meadows. At Easton. (Porter.)

*CAREX OLIGOCARPA* Schk. In dry woods and thickets, Chestnut Hill, Easton. (Porter.)

*CAREX HITCHCOCKIANA* Dewey. In woods and thickets, College Hill, Easton. (Porter.)

*CAREX TETANICA* Schk. In grassy meadows and wet woods. (Porter.)

*CAREX LAXIFLORA* Lam. In dry woods, Lehigh Mt. May 13, 1899.

*CAREX LAXIFLORA PATULIFOLIA* (Dewey) Carey. (Porter.)

*CAREX STYLOFLEXA* Buckley. In woods and thickets. (Porter.)

*CAREX DIGITALIS* Willd. In woods and thickets. (Porter.)

*CAREX LAXICULMIS* Schwein. In woods and thickets, Chestnut Hill, Easton. (Porter.)

*CAREX SETIFOLIA* (Dewey) Britton. In dry or rocky soil, preferring limestone rocks, at Easton. (Porter.)

*CAREX PEDICELLATA* (Dewey) Britton. In dry soil. (Porter.)

*CAREX PENNSYLVANICA* Lam. On dry hillsides on Lehigh Mt.

*CAREX VARIA* Muhl. On dry hillsides on Lehigh Mt. near South Bethlehem.

*CAREX NIGRO-MARGINATA* Schwein. In dry soil, Seidersville. (Porter.)

*CAREX UMBELLATA* Schk. In dry or arid soil. (Porter.)

*CAREX PUBESCENS* Muhl. In woods, College Hill, Easton. (Porter.)

*CAREX WILLDENOVII* Schk. In dry soil or woods. (Porter.)

*CAREX LEPTALEA* Wahl. In wet places. (Porter.)

*CAREX VULPINOIDEA* Michx. In wet soil along canal at Bethlehem and along mountain stream near Lehigh University. June 20, 1899.

*CAREX STIPATA* Muhl. In wet meadows along Monocacy creek near Bethlehem. May 30, 1899.

*CAREX ROSEA* Schk. Easton (Porter); on dry hillsides on Lehigh Mt.

*CAREX RETROFLEXA* Muhl. In woods. (Porter.)

*CAREX MURICATA* L. On College Hill, Easton. (Porter.)

*CAREX SPARGANIOIDES* Muhl. Along roadsides, Bethlehem. May 13, 1899.

*CAREX CEPHALOIDEA* Dewey. In dry fields and on hills. (Porter.)

*CAREX CEPHALOPHORA* Muhl. In stony thickets near Bethlehem. May 30, 1899.

*CAREX MUHLENBERGII* Schk. On summit of Lehigh Mt. in rocky soil. June 15, 1900. (J. A. Ruth.) At Easton and Seidersville. (Porter.)

*CAREX MUHLENBERGII XALAPENSIS* (Kunth.) Britton. (Porter.)

*CAREX STERILIS* Willd. In sandy or moist soil. (Porter.)

*CAREX INTERIOR CAPILLACEA* Bailey. At Bangor. (Porter.)

*CAREX CANESCENS* L. In wet places. (Porter.)

*CAREX BROMOIDES* Schk. In wet places. (Porter.)

*CAREX SICCATA* Dewey. In dry fields and on hills, Bethlehem. (Porter.)  
This is the only county in the state from which it is reported in Porter's Flora.

*CAREX TRIBULOIDES* Wahl. In meadows. (Porter.)

*CAREX SCOPARIA* Schk. In wet soil along canal at Bethlehem. June 20, 1899.

*CAREX CRISTATELLA* Britton. In meadows and low thickets. (Porter.)

*CAREX FOENEA* Willd. In dry woods, often on rocks. (Porter.)

*CAREX FOENEA PERPLEXA* Bailey. (Porter.)

*CAREX STRAMINEA* Willd. In rocky ravine on Lehigh Mt. June 15, 1900. (J. A. Ruth.)

*CAREX FESTUCACEA* Willd. In dry or moist soil. (Porter.)

### ARACEAE

*ARISAEMA TRIPHYLLUM* (L.) Torr. In moist woods on Lehigh Mt; along Saucon creek near Hellertown; at Walnutport. Generally distributed. May 12, 1896.

*ARISAEMA DRACONTIUM* (L.) Schott. In moist sandy soil along Lehigh river at Bethlehem, a single specimen being found, with mature fruit. Sept. 15, 1900.

*CALLA PALUSTRIS* L. In bogs. (Porter.)

*SPATHYEMA FOETIDA* (L.) Raf. In marshy soil along Monocacy creek. Abundant. April 20, 1898.

*ORONTIUM AQUATICUM* L. In swamps. (Porter.)

*ACORUS CALAMUS* L. In wet places. (Porter.)

### LEMNACEAE

*SPIRODELA POLYRHIZA* (L.) Schleid. In rivers and ponds. (Porter.)

*LEMNA TRISULCA* L. In still or flowing water. (Porter.)

*LEMNA PERPUSILLA* Torr. In ponds, rivers, and springs. (Porter.)

*LEMNA MINOR* L. In ponds and stagnant water. (Porter.)

## COMMELINACEAE

*COMMELINA NUDIFLORA* L. In sandy soil along the Lehigh river at Glendon. Aug. 25, 1902.

*COMMELINA COMMUNIS* L. In waste places, Bethlehem.

## PONTEDERIACEAE

*PONTEDERIA CORDATA* L. In wet soil along Lehigh river at Island Park. Aug. 25, 1901.

*HETERANTHERA RENIFORMIS* R. & P. In mud or shallow water. (Porter.)

*HETERANTHERA DUBIA* (Jacq.) MacM. In still water. (Porter.)

## JUNCACEAE

*JUNCUS EFFUSUS* L. In moist soil along the canal at Bethlehem. June 20, 1899.

*JUNCUS BUFONIUS* L. Frequenting dried-up pools, borders of streams and roadsides. (Porter.)

*JUNCUS TENUIS* Willd. In dry sandy paths along Lehigh river, Bethlehem. July 15, 1899.

*JUNCUS SECUNDUS* Beauv. In fields, Bethlehem. July 10, 1899.

*JUNCUS MARGINATUS* Rostk. In grassy places. (Porter.)

*JUNCUS NODOSUS* L. (Porter.)

*JUNCUS CANADENSIS* J. Gay. (Porter.)

*JUNCUS CANADENSIS SUBCAUDATUS* Engelm. (Porter.)

*JUNCUS ACUMINATUS* Michx. Frequents moist soil. (Porter.)

*JUNOIDES CAMPESTRE* (L.) Kuntze. In wood lands. (Porter.)

## MELANTHACEAE

*CHAMAELIRIUM LUTEUM* (L.) A. Gray. In moist meadows and thickets. (Porter.)

*MELANTHUM LATIFOLIUM* Desr. In dry woods and on hills. (Porter.)

*VERATRUM VIRIDE* Ait. In moist ground at Wind Gap. (G. W. Caffrey.)

*UVULARIA PERFOLIATA* L. In moist thickets and woods on Lehigh Mt. and along canal near Bethlehem. May 17, 1897.

*UVULARIA SESSILIFOLIA* L. In thickets along canal one mile east of Bethlehem. May 9, 1898.

## LILIACEAE

*HEMEROCALLIS FULVA* L. In meadows and along streams. (Porter.)

*ALLIUM VINEALE* L. In fields near Bethlehem. July 10, 1897.

*LILIMUM PHILADELPHICUM* L. In dry woods. (Porter.)

*LILIMUM CANADENSE* L. In swamps and meadows. (Porter.)

*LILIMUM SUPERBUM* L. In meadows and marshes. (Porter.)

*LILIMUM TIGRINUM* Andr. Escaped from cultivation along fence 3 miles north of Bethlehem.

*ERYTHRONIUM AMERICANUM* Ker. In moist sandy soil along towpath east of Bethlehem. April, 1896.

*ORNITHOGALUM UMBELLATUM* L. In meadows along Saucon Creek about one mile from its mouth. Native of Europe. June 1, 1901.

*ORNITHOGALUM NUTANS* L. In damp soil along canal one mile east of Bethlehem.

*MUSCARI BOTRYOIDES* (L.) Mill. In waste places along roadsides, Bethlehem.

## CONVALLARIACEAE

*ASPARAGUS OFFICINALIS* L. In thickets and along fences and waste places, Bethlehem. May 30, 1899.

*VAGNERA RACEMOSA* (L.) Morong. In shaded places along Monocacy and Saucon creeks. May 30, 1899.

*VAGNERA STELLATA* (L.) Morong. In moist soil. (Porter.)  
*UNIFOLIUM CANADENSE* (Desf.) Greene. Along mountain streams in moist and shady places on Lehigh Mt. near Lehigh University. Altitude 900 feet. May 30, 1900; also at Nazareth.  
*POLYGONATUM BIFLORUM* (Walt.) Ell. In woods near Bethlehem and in thickets along Saucon creek. May 17, 1897.  
*POLYGONATUM COMMUTATUM* (R. & S.) Dietr. In moist woods and along streams. (Porter.)  
*MEDEOLA VIRGINIANA* L. In damp soil, Lehigh Mt., vicinity of Lehigh University. June, 1901.  
*TRILLIUM CERNUUM* L. In rich woods. (Porter.)

#### SMILACEAE

*SMILAX HERBACEA* L. In woods and thickets on Lehigh Mt.  
*SMILAX GLAUCA* Walt. In dry sandy soil. (Porter.)  
*SMILAX HISPIDA* Muhl. In thickets. (Porter.)  
*SMILAX ROTUNDIFOLIA* L. In woods and thickets. (Porter.)

#### AMARYLLIDACEAE

*HYPOXIS HIRSUTA* (L.) Coville. In dry soil on Lehigh Mt. May 30, 1897.  
*NARCISSUS PSEUDO-NARCISSUS* L. Escaped from cultivation. (Porter.)

#### DIOSCOREACEAE

*DIOSCOREA VILLOSA* L. Along Lehigh river in moist soil at Bethlehem.

#### IRIDACEAE

*IRIS VERSICOLOR* L. Along Monocacy creek in thickets.  
*GEMMINGIA CHINENSIS* (L.) Kuntze. On hills and along roadsides. (Porter.)  
*SISYRINCHIUM GRAMINOIDES* Bicknell. In grassy places, sometimes in woods. (Porter.)  
*SISYRINCHIUM ANGUSTIFOLIUM* Mill. On grassy hillsides, Lehigh Mt., near South Bethlehem; altitude 900 feet. May 30, 1900.

#### ORCHIDACEAE

*CYPRIPEDIUM ACAULE* Ait. In woods and thickets, Lehigh Mt., near South Bethlehem. May 15, 1896.  
*CYPRIPEDIUM HIRSUTUM* Mill. In woods on Bougher Hill, Williams Township. (J. A. Ruth.)  
*CYPRIPEDIUM PARVIFLORUM* Salisb. In rich woods and thickets. (Porter.)  
*ORCHIS SPECTABILIS* L. In rich woods. (Porter.)  
*HABENARIA BRACTEATA* (Willd.) R. Br. In woods and meadows. (Porter.)  
*HABENARIA CILIARIS* (L.) R. Br. In meadows. (Porter.)  
*HABENARIA GRANDIFLORA* (Bigel.) Torr. In rich woods and meadows. (Porter.)  
*POGONIA OPHIOGLOSSOIDES* (L.) Ker. In meadows and swamps. (Porter.)  
*POGONIA TRIANTHOPHORA* (Sw.) R.S.P. In rich woods. (Porter.)  
*GYROSTACHYS PLANTAGINEA* (Raf.) Britton. Moist banks and woods. (Porter.)  
*GYROSTACHYS CERNUA* (L.) Kuntze. In moist ground on Lehigh Mt. in vicinity of Lehigh University. (G. W. Caffrey.)  
*GYROSTACHYS GRACILIS* (Bigel.) Kuntze. In dry, open fields and open woods. (Porter.)  
*PERAMNIUM PUBESCENS* (Willd.) MacM. In dry woods. (Porter.)  
*LEPTORCHIS LILIIFOLIA* (L.) Kuntze. In moist shady grounds, Lehigh Mt. May 30, 1900.  
*CORALLORHIZA ODONTORHIZA* (Willd.) Nutt. In woods. (Porter.)  
*CORALLORHIZA MULTIFLORA* Nutt. In woods. (Porter.)  
*LIMODORUM TUBEROSUM* L. In bogs and meadows. (Porter.)

## JUGLANDACEAE

*JUGLANS NIGRA* L. On rocky hillsides, Lehigh Mt.; along the Monocacy creek in meadow land.

*JUGLANS CINEREA* L. In rocky soil, Lehigh Mt.

*HICORIA MINIMA* (Marsh.) Britton. In moist woods and swamps. (Porter.)

*HICORA OVATA* (Mill.) Britton. In rich soil. (Porter.)

*HICORA ALBA* (L.) Britton. In rich soil. (Porter.)

*HICORIA MICROCARPA* (Nutt.) Britton. In rich woods. (Porter.)

*HICORIA GLABRA* (Mill.) Britton. In dry soil along Monocacy Creek near Bethlehem.

## MYRICACEAE

*COMPTONIA PEREGRINA* (L.) Coulter. On hillsides, Lehigh Mt., near South Bethlehem. In dry woods in Williams Township. In fruit July 1, 1899.

## SALICACEAE

*POPULUS ALBA* L. In cemetery and yards at Bethlehem. March 18, 1898.

*POPULUS BALSAMIFERA* L. In moist soil along Lehigh river, Bethlehem; on dry rocky soil three miles north of Bethlehem. July 15, 1899.

*POPULUS BALSAMIFERA CANDICANS* (Ait.) A. Gray. In woods and fields. (Porter.)

*POPULUS GRANDIDENTATA* Michx. In rich woods. (Porter.)

*POPULUS TREMULOIDES* Michx. In dry or moist soil. (Porter.)

*SALIX NIGRA* Marsh. Along streams and lakes. (Porter.)

*SALIX LUCIDA* Muhl. In swamps and along streams. (Porter.)

*SALIX FRAGILIS* L. Escaped from cultivation. (Porter.)

*SALIX ALBA* L. In moist soil along the Lehigh river.

*SALIX BABYLONICA* L. In moist soil along Monocacy creek.

*SALIX PURPUREA* L. Sparingly escaped from cultivation. (Porter.)

*SALIX FLUVIATILIS* Nutt. Along streams and lakes. (Porter.)

*SALIX BEBBIANA* Sarg. In dry soil along streams. (Porter.)

*SALIX HUMILIS* Marsh. In dry soil. (Porter.)

*SALIX SERICEA* Marsh. In swamps and along streams. (Porter.)

*SALIX VIMINALIS* L. In wet soil along Lehigh River at Island Park.

*SALIX CORDATA* Muhl. In wet soil. (Porter.)

## BETULACEAE

*CARPINUS CAROLINIANA* Walt. In moist woods and along streams. (Porter.)

*OSTRYA VIRGINIANA* (Mill.) Willd. In dry woods. (Porter.)

*CORYLUS AMERICANA* Walt. In thickets in Williams Township. July 28, 1900.

*CORYLUS ROSTRATA* Ait. In thickets, in dry soil at Wind Gap.

*BETULA POPULIFOLIA* Marsh. In moist or dry soil. (Porter.)

*BETULA NIGRA* L. Along Lehigh river at Bethlehem. May 1, 1898.

*BETULA LENTA* L. On hillsides on rocky soil on Lehigh Mt. near Bethlehem; also in Williams Township. April 29, 1902. Fruit June 25, 1902.

*ALNUS INCANA* (L.) Willd. In wet soil. (Porter.)

*ALNUS RUGOSA* (DuRoi.) K. Koch. In sandy soil along Lehigh river, Bethlehem. April, 1900.

*ALNUS GLUTINOSA* (L.) Medic. In wet places. (Porter.)

## FAGACEAE

*FAGUS AMERICANA* Sweet. In woods, Lehigh Mt.

*CASTANEA DENTATA* (Marsh.) Borkh. General throughout the county in rich soil. June 25, 1898.

*QUERCUS RUBRA* L. In dry soil, Bethlehem.

*QUERCUS PALUSTRIS* DuRoi. Along towpath one mile east of Bethlehem. In fruit Oct. 1, 1900.

*QUERCUS COCCINEA* Wang. In dry soil. (Porter.)  
*QUERCUS VELUTINA* Lam. In woods near Fountain Hill. (J. A. Ruth.)  
*QUERCUS NANA* (Marsh.) Sarg. In sandy or rocky soil. (Porter.)  
*QUERCUS MARYLANDICA* Muench. In dry soil. (Porter.)  
*QUERCUS ALBA* L. In woods near South Bethlehem. (J. A. Ruth.)  
*QUERCUS MINOR* (Marsh.) Sarg. In dry soil. (Porter.)  
*QUERCUS MACROCARPA* Michx. In rich soil. (Porter.)  
*QUERCUS PLATANOIDES* (Lam.) Sudw. In moist or swampy soil. (Porter.)  
*QUERCUS PRINUS* L. In dry soil. (Porter.)  
*QUERCUS ACUMINATA* (Michx.) Sarg. In dry soil. Bethlehem.  
*QUERCUS PRINOIDES* Willd. In dry or sandy soil. (Porter.)

#### ULMACEAE

*ULMUS AMERICANA* L. In moist soil. (Porter.) Along Lehigh river east of Bethlehem.  
*ULMUS CAMPESTRIS* L. Adventive or naturalized from Europe on Bushkill creek. (Porter.)  
*ULMUS FULVA* Michx. In dry rocky soil along Monocacy Creek.  
*CELTIS OCCIDENTALIS* L. In dry rocky soil along Monocacy and Saucon creeks and Lehigh river. May 6, 1900.  
*CELTIS CRASSIFOLIA* Lam. (Porter.)

#### MORACEAE

*MORUS RUBRA* L. In dry soil along the canal east of Bethlehem. May 20, 1900.  
*MORUS ALBA* L. In fields and hillsides, Bethlehem. May 18, 1899.  
*HUMULUS LUPULUS* L. In thickets and hedges near Bethlehem. July 22, 1899.  
*CANNABIS SATIVA* L. In waste places and along roadsides, South Bethlehem.

#### URTICACEAE

*URTICA DIOICA* L. In waste places, Bethlehem.  
*URTICA GRACILIS* Ait. In waste places, Bethlehem. (J. A. Ruth.)  
*URTICASTRUM DIVARICATUM* (L.) Kuntze. In woods near South Bethlehem. (J. A. Ruth.)  
*ADICEA PUMILA* (L.) Raf. In moist wet places. (Porter.)  
*BOEHMERIA CYLINDRICA* (L.) Willd. In moist ground along Lehigh River. July 15, 1899.  
*BOEHMERIA CYLINDRICA SCABRA* Porter. (Porter.)

#### SANTALACEAE

*COMANDRA UMBELLATA* (L.) Nutt. In dry fields and thickets. (Porter.)

#### ARISTOLOCHIACEAE

*ASARUM CANADENSE* L. In rich soil in thickets along canal one mile east of Bethlehem; along Saucon creek. June 1, 1901.  
*ASARUM REFLEXUM* Bicknell. In rich soil along streams. (Porter.)  
*ARISTOLOCHIA SERPENTARIA* L. In rich woods in Williams Township.

#### POLYGONACEAE

*RUMEX ACETOSELLA* L. In dry fields. Common. May 6, 1897.  
*RUMEX PATIENTIA* L. In dry fields at Bethlehem. June 5, 1897.  
*RUMEX CRISPUS* L. In waste places at Bethlehem. (J. A. Ruth.)  
*RUMEX OBTUSIFOLIUS* L. In waste places, South Bethlehem. Oct. 30, 1897.  
*FAGOPYRUM FAGOPYRUM* (L.) Karst. In waste places and along railroad tracks, Bethlehem.  
*POLYGONUM AMPHIBIUM* L. In ponds and lakes. (Porter.)

POLYGONUM EMERSUM (Michx.) Britton. In swamps or moist soil. (Porter.)  
 POLYGONUM INCARNATUM Ell. In wet soil. (Porter.)  
 POLYGONUM PENNSYLVANICUM L. In waste places near Bethlehem. Sept. 17, 1895.  
 POLYGONUM PERSICARIA L. In waste places. (Porter.)  
 POLYGONUM HYDROPIPEROIDES Michx. In swamps or wet soil. (Porter.)  
 POLYGONUM HYDROPIPER L. In waste places about Bethlehem. (J. A. Ruth.)  
 POLYGONUM PUNCTATUM Ell. In wet, sandy soil, Bethlehem. Aug. 5, 1899.  
 POLYGONUM ORIENTALE L. In waste places, Bethlehem; along canal near Glendon.  
 POLYGONUM VIRGINIANUM L. In thickets along towpath near Bethlehem.  
 POLYGONUM AVICULARE L. Common in waste places, Bethlehem. Sept. 4, 1899.  
 POLYGONUM LITTORALE Link. On shores and in waste places. (Porter.)  
 POLYGONUM ERECTUM L. In moist or dry soil. (Porter.)  
 POLYGONUM TENUE Michx. In dry soil. (Porter.)  
 POLYGONUM CONVOLVULUS L. In waste or cultivated grounds. (Porter.)  
 POLYGONUM CILINODE Michx. In rocky places. On both sides of Delaware river at Easton. (Porter.)  
 POLYGONUM SCANDENS L. In thickets and waste places, Bethlehem. July 22, 1899.  
 POLYGONUM SAGITTATUM L. In moist ground along Monocacy creek, one mile from Bethlehem. Aug. 12, 1899.  
 POLYGONUM ARIFOLIUM L. In marshy ground along Monocacy Creek near Bethlehem.  
 POLYGONUM HERNARIOIDES Del. On ore dumps in Bethlehem Steel Co.'s yards. Reported in Bull. Torrey Club 19: 10. 1892.

#### CHENOPODIACEAE

CHENOPodium ALBUM L. Common in waste places, Bethlehem.  
 CHENOPodium VIRIDE L. In waste places, Bethlehem.  
 CHENOPodium GLAUCUM L. Along streets of Easton. (Porter.) Along P. & R. R. R. tracks, South Bethlehem. July 22, 1899.  
 CHENOPodium BOSCIANUM Moq. In woods and thickets, Easton. (Porter.)  
 CHENOPodium MURALE L. In waste places. (Porter.)  
 CHENOPodium HYBRIDUM L. In woods and sometimes in waste places. (Porter.)  
 CHENOPodium BONUS-HENRICUS L. In waste places and in moist soil along Monocacy creek, Bethlehem. Aug. 12, 1899.  
 CHENOPodium BOTRYS L. Along towpath, Bethlehem. Aug. 5, 1899.  
 CHENOPodium AMBROSIOIDES L. In waste places, Bethlehem. (J. A. Ruth.)  
 ROUBIEVA MULTIFIDA (L.) Moq. On ore dumps in Bethlehem Steel Co.'s yards. Reported in Torrey Bulletin Jan., 1892.  
 BLITUM CAPITATUM L. In dry soil. (Porter.)  
 ATRIPLEX HASTATA L. Along the railroads near Bethlehem. (E. A. Rau in Bull. Torrey Club Oct., 1881.)

#### AMARANTHACEAE

AMARANTHUS HYBRIDUS L. In waste places and along roadsides, Bethlehem. Sept. 15, 1900.  
 AMARANTHUS HYBRIDUS PANICULATUS (L.) Uline. & Bray. In waste grounds, Bethlehem.  
 AMARANTHUS GRAECIZANS L. In ballast along railroads, Bethlehem. Sept. 3, 1899; in waste places, Glendon.  
 AMARANTHUS DEFLEXUS L. On ore dumps in Bethlehem Steel Co.'s yards. Reported in Bull. Torrey Club 19: 10. 1892.  
 AMARANTHUS BLITUM L. On ore dumps in Bethlehem Steel Co.'s yards. Reported in Bull. Torrey Club 19: 10. 1892.

## PHYTOLACCACEAE

*PHYTOLACCA DECANDRA* L. In moist soil along Saucon creek; in hedges and thickets, Bethlehem. July 10, 1899.

## AIZOACEAE

*MOLLUGO VERTICILLATA* L. In waste places, Bethlehem. Aug. 16, 1900.

## PORTULACACEAE

*CLAYTONIA VIRGINICA* L. In moist thickets along Lehigh canal two miles east of Bethlehem. May 2, 1896.

*PORTULACA OLERACEA* L. In waste places and along roadsides, Bethlehem.

*PORTULACA GRANDIFLORA* Hook. Occasionally escaped from cultivation and in waste places.

## CARYOPHYLLACEAE

*AGROSTEMMA GITHAGO* L. Generally distributed in grain fields. Ascends on Lehigh Mt. to 940 feet. May 12, 1896.

*SILENE STELLATA* (L.) Ait. In woods. (Porter.)

*SILENE VULGARIS* (Moench.) Garcke. In meadows and waste places. (Porter.)

*SILENE VIRGINICA* L. In rocky woods in Allen township. June 3, 1901.

*SILENE CAROLINIANA* Walt. In dry or rocky soil. (Porter.)

*SILENE ANTIRRHINA* L. In fields and waste places, Bethlehem. June 20, 1899.

*SILENE ARMERIA* L. Occasionally in waste places, Bethlehem.

*SILENE NOCTIFLORA* L. In waste places, Bethlehem.

*SILENE ANGLICA* L. In waste places. (Porter.)

*LYCHNIS ALBA* Mill. In waste places, Bethlehem.

*SAPONARIA OFFICINALIS* L. In waste places, Bethlehem; also in Allen township. July 13, 1898.

*VACCARIA VACCARIA* (L.) Britton. Along L. V. R. R. track, Bethlehem.

*DIANTHUS ARMERIA* L. In fields and along roadsides. (Porter.)

*ALSINE ULGINOSA* (Murr.) Britton. In cold brooks and springs. (Porter.)

*ALSINE MEDIA* L. In gardens, lawns, and waste places, Bethlehem. Common. May 6, 1900.

*ALSINE LONGIFOLIA* (Muhl.) Britton. In moist grounds along Lehigh canal one mile east of Bethlehem. June 3, 1899.

*ALSINE GRAMINEA* (L.) Britton. In fields and waste places. Aug., 1898.

*CERASTIUM VISCOMUM* L. In waste places, Bethlehem. (J. A. Ruth.)

*CERASTIUM SEMIDECANDRUM* L. In dry soil on Lehigh Mt. June 12, 1897.

*CERASTIUM VULGATUM* L. In thickets along roadsides, Bethlehem. May 30, 1899.

*CERASTIUM LONGIPEDUNCULATUM* Muhl. In moist shaded places. (Porter.)

*CERASTIUM ARVENSE* L. In dry, rocky places. (Porter.)

*SAGINA PROCUMBENS* L. In streets, Bath. (Porter.)

*ARENARIA SERPYLLIFOLIA* L. In fields and cemeteries, Bethlehem. May 20, 1900.

*ARENARIA STRICTA* Michx. In dry, rocky places. (Porter.)

*ANYCHIA DICTOMA* Michx. In woods on Lehigh Mt.

*ANYCHIA CANADENSIS* (L.) B.S.P. In dry woods two miles east of Bethlehem. July 22, 1911.

*SCLERANTHUS ANNUUS* L. In fields and waste places. (Porter.)

## NYMPHAEACEAE

*BRASENIA PURPUREA* (Michx.) Casp. In ponds and slow streams. (Porter.)

*NYMPHAEA ADVENA* Soland. In Lehigh river at Calypso Island, Bethlehem, and at Freemansburg. Aug. 25, 1901.

*CASTALIA ODORATA* (Dryand.) Woody. & Wood. In Lehigh river at Island Park. Aug. 25, 1901.

*(To be continued)*